

*REMARKS/ARGUMENTS**Examiner Interview*

Applicants thank Examiner Pak for the courtesy extended to their representative, Melissa E. Kolom, during the telephonic interview held on January 5, 2005. The matters discussed during the interview are substantially as set forth herein.

*The Pending Claims*

Claims 12, 14-16, 18, 20, 22, 24, 26, and 28 are pending. Claims 24, 26, and 28 are withdrawn.

*The Amendments to the Claims*

Claim 12 has been amended to recite that the wild type potato tuber lipoxygenase consists of SEQ ID NO: 3, and to incorporate the subject matter of claim 13. As such, claim 13, and claims 17, 19, 21, 23, 24, and 27 depending therefrom, have been cancelled. Accordingly, no new matter has been added by way of these amendments.

*The Office Action*

Claims 12 and 13-23 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Claims 12-23 are rejected under 35 U.S.C. § 112, first paragraph, for an alleged lack of written description and nonenablement. Claims 12-23 are rejected under 35 U.S.C. § 103, as allegedly unpatentable over the combined disclosures of Gan et al., *J. Biol. Chem.*, 271: 25412-25418 (1996) ("the Gan reference"), Geerts et al., *Plant Physiol.*, 105: 269-277 (1994) ("the Geerts reference"), and Sloane et al., *Nature*, 354: 149-152 (1991) ("the Sloane reference"). Reconsideration of these rejections is hereby requested.

*Discussion of Rejections Under 35 U.S.C. § 112, Second Paragraph*

Claims 12-23 have been rejected under Section 112, second paragraph, as allegedly indefinite. In particular, the metes and bounds of the phrase "an amino acid of SEQ ID NO: 3" is unclear, and allegedly encompasses fragments of SEQ ID NO: 3. To advance prosecution of the application, and not in acquiescence of the rejection, claim 12 has been

amended to recite that the wild type potato tuber lipoxygenase *consists of* SEQ ID NO: 3. Accordingly, the metes and bounds of claim 12 are clear, and the Section 112, second paragraph rejection should be withdrawn.

*Discussion of the Written Description and Enablement Rejections*

Claims 12-23 are rejected under 35 U.S.C. § 112, first paragraph, for an alleged lack of written description and nonenablement. With respect to the written description rejection, the Office Action alleges that the claims encompass a method of modifying a wild type potato tuber lipoxygenase by changing any number of amino acids of SEQ ID NO: 3 not limited to residue 576. With respect to enablement, the Office Action alleges that the specification is only enabling for the 5-lipoxygenase mutant disclosed in the application. Solely in an effort to advance prosecution of the subject application, and not in acquiescence of the rejections, claim 12 has been amended to recite a method of enhancing the specificity of a potato tuber lipoxygenase consisting of SEQ ID NO: 3 for position 11 of arachidonic acid comprising changing the amino acid at position 576 of SEQ ID NO: 3 to a Phe residue. Accordingly, the written description and enablement rejections under Section 112, first paragraph, are rendered moot by these amendments and should be withdrawn.

*Discussion of Obviousness Rejection*

Claims 12-23 have been rejected under Section 103 as allegedly obvious in view of the combined disclosures of the Gan reference, the Geerts reference, and the Sloane reference. This rejection is traversed for the reasons set forth below.

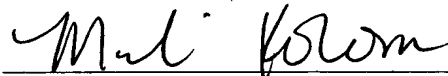
As discussed above, the pending claims recite a method of enhancing the specificity of a potato tuber lipoxygenase consisting of SEQ ID NO: 3 for position 11 of arachidonic acid comprising changing the amino acid at position 576 of SEQ ID NO: 3 to a Phe residue. Neither the Gan reference, the Geerts reference, nor the Sloane reference discloses or suggests a particular amino acid modification at position 576 of SEQ ID NO: 3 that enhances the specificity of potato tuber lipoxygenase for position 11 of arachidonic acid, much less changing the amino acid at position 576 of SEQ ID NO: 3 to a Phe residue.

Thus, the pending claims do not recite subject matter that is obvious in view of the Gan reference, the Sloane reference, and the Geerts reference. As such, the Section 103 rejection should be withdrawn.

*Conclusion*

Applicants respectfully submit that the patent application is in condition for allowance. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned agent.

Respectfully submitted,



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